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EPA Region IV, TES VIII
Carrier Air Conditioning Site

BVWST Project 45256.001
February 28, 1991

Ms. Beth Brown
U.S. EPA Region IV
345 Courtland Street, NE
Atlanta, Georgia 30365

Subject: Groundwater Sampling Oversight

Dear Ms. Brown:

During the week of February 18, 1991, BVWST conducted oversight of RP Contractor groundwater sampling activities at the Carrier Air Conditioning site. In general, the sampling activities were conducted in accordance with EPA Region IV ESD SOP. However, two deficiencies observed by BVWST and discussed with RP sampling personnel should be addressed prior to the next sampling event.

Although field parameters were taken from each of the deep wells during purging using an in-line instrument attached to the discharge line of the pump, field parameters were not taken during purging of the shallow wells. In several wells this was not practical because many of the shallow wells were bailed dry after removing one casing volume of water. Due to slow recharge, an adequate volume of water for sampling did not enter most of the shallow wells until several hours after purging. Field parameters were taken prior to sampling the shallow wells if sufficient water was available. A number of wells (for example, those east of Byhalia Road) produced moderate amounts of water and were not bailed dry after one casing volume was removed. Field parameters should be taken, at a minimum, after each casing volume of water is removed from the shallow wells which produce sufficient water.

The RP Contractor received sample bottles pre-preserved with nitric acid from the analytical laboratory. BVWST observed that, initally the pH was not checked after the sample bottles were filled and advised that the pH be checked. Upon checking the pH of the groundwater samples for metals analysis it was determined that the pH was consistently greater than 2. According to EPA Region IV SOP, the groundwater sample to be analyzed for metals should be preserved as soon as possible after collecting the sample with nitric acid such that pH is less than 2. Improper preservation may result in misleading analytical data.

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Based upon our observations, BVWST recommends the following:

1. Attempts should be made, where possible, to obtain field parameters from shallow wells during well purging.

2. Another set of field instruments for taking field parameters should be available to field personnel during purging/sampling activities. When the in-line instrument is in use during purging of a deep well, another set of instruments should be available so that parameters from shallow wells can be measured when purged or sampled concurrently with the deep wells.

3. Ideally, the samples for metals analysis should be preserved as soon as possible after collecting the sample and the pH should be checked to assure that it is less than 2, as required. If bottles pre-preserved with nitric acid are used in the future, the pH of each preserved sample should be checked and nitric acid should be available so that, if necessary, pH can be lowered by sampling personnel to the appropriate level as soon as possible after collecting the sample.

If you have any questions regarding these comments, do not hesitate to call me at 392-9227.

Very truly yours,

B&V WASTE SCIENCE AND TECHNOLOGY CORP.

Robert E. Marbury

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cc: Jane Penny, Dynamac